

Title (en)

Use of chromium steel with high hardness and corrosion resistance for coating of metallic substrates

Title (de)

Verwendung eines Chromstahls mit hoher Härte und Korrosionsbeständigkeit zum Beschichten metallischer Substrate

Title (fr)

Utilisation d'un acier chromé à haute dureté et résistance à la corrosion pour le revêtement des surfaces métalliques

Publication

**EP 2664684 B1 20180711 (DE)**

Application

**EP 13167591 A 20130514**

Priority

DE 102012009496 A 20120514

Abstract (en)

[origin: EP2664684A2] Chromium-steel comprises 0.1-0.3% of carbon, 0.01-0.1% of nitrogen, 0.01-1% of silicon, 0.01-2% of manganese, 11-16% of chromium, 0.1-2% of molybdenum, 0.01-0.5% of nickel, 0.01-0.4% of copper, 0.01-0.1% of niobium, up to 0.1% of titanium, up to 0.1% of vanadium, up to 0.02% of sulfur, up to 0.02% of phosphorus, 0.02% of boron, and remaining iron including impurities caused by smelting process. An independent claim is included for use of a wire made of an austenitic steel comprising the chromium-steel, for manufacturing wear coatings with martensitic structure and a hardness of at least 450 HVI by thermally coating metallic substrates.

IPC 8 full level

**C23C 4/08** (2016.01); **B23K 35/02** (2006.01); **B23K 35/30** (2006.01); **B32B 15/01** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/12** (2006.01); **C22C 38/16** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C23C 4/06** (2016.01); **C23C 4/067** (2016.01); **C23C 4/12** (2016.01); **C23C 4/131** (2016.01)

CPC (source: EP)

**B23K 35/0261** (2013.01); **B23K 35/308** (2013.01); **B32B 15/01** (2013.01); **C22C 38/001** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/12** (2013.01); **C22C 38/16** (2013.01); **C22C 38/18** (2013.01); **C22C 38/20** (2013.01); **C22C 38/22** (2013.01); **C22C 38/38** (2013.01); **C22C 38/40** (2013.01); **C22C 38/42** (2013.01); **C22C 38/44** (2013.01); **C22C 38/48** (2013.01); **C22C 38/54** (2013.01); **C22C 38/58** (2013.01); **C23C 4/06** (2013.01); **C23C 4/067** (2016.01); **C23C 4/08** (2013.01); **C23C 4/12** (2013.01); **C23C 4/131** (2016.01); **C21D 2211/004** (2013.01); **C21D 2211/008** (2013.01)

Cited by

CN104476011A; US2022282361A1; US11866813B2; CN104476010A; CN106695167A; CN106102988A; CN106695166A; US10550461B2; EP2896713A1; EP3369840A1; CN108546902A; RU2757087C2; WO2015135618A1; US9988701B2; EP3642377A4; WO2014000849A3; US11326239B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 2664684 A2 20131120; EP 2664684 A3 20160921; EP 2664684 B1 20180711;** DE 102012009496 A1 20131114;  
DE 102012009496 B4 20170511; ES 2688722 T3 20181106

DOCDB simple family (application)

**EP 13167591 A 20130514;** DE 102012009496 A 20120514; ES 13167591 T 20130514